



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

zel

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/565,361

01/23/2006

Dieter Tischenborf

CPBMUL34

5578

7590 11/30/2007
Charles P Boukus Jr
Suite 202
2001 Jefferson Davis Highway
Arlington, VA 22202

EXAMINER

CUTLIFF, YATE KAI RENE

ART UNIT	PAPER NUMBER
----------	--------------

1621

MAIL DATE	DELIVERY MODE
-----------	---------------

11/30/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/565,361

Applicant(s)

TISCHENBORF, DIETER

Examiner

Yate' K. Cutliff

Art Unit

1621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 and 17-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 17-22 is/are rejected.
- 7) ☒ Claim(s) 3 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date See Continuation Sheet
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :1/23/2006, 10/29/2007 & 11/08/2007 .

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group I claims 1-20 in the reply filed on October 29, 2007 is acknowledged. The traversal is on the ground(s) that the raw material produced by the method of claim 1 is common to claims 21 and 22. This is found persuasive and the restriction requirement is withdrawn.

Claims 1-22 are under examination.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claim 1 provides for the method for production of raw materials..., but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a process without any active, positive steps delimiting how this use is actually practiced.

Claim 1 is rejected under 35 U.S.C. 101 because the claimed recitation of a process, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under

35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

5. Claims 3 and 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 3 and 5 the term "preferably" makes the claims indefinite because it is unclear whether the narrower range is a limitation.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 1, 2, 4, 5, 7 – 15, 17-20 and 22 rejected under 35 U.S.C. 103(a) as being unpatentable over Murphy et al. (U.S. 6,645,262) and Best et al. (U.S. 5,928,696) in view of Kuiper (U.S. 4,278,609).

The rejected claims, inter alia, claim a method for the production of raw materials for candle production and for heat storage material, such as waxes, in which from a starting material containing lipids the lipids are extracted and/or refined and/or hydrogenated, characterized in that as the starting material, a mixture of food residues, old cooking fats and/or recycled food materials from the food industry, and/or animal fats, a) in a first method step are washed and comminuted; b) in a second method step, the lipids are isolated and processed into triglycerides; and c) next, the triglycerides are refined and hydrogenated into the raw material for the candle production or for the heat storage material.

Murphy et al. discloses a triacylglycerol-based wax (triglyceride), which can be used in candle making, is provided. The triacylglycerol-based material is predominantly includes a triacylglycerol stock which has a fatty acid profile has no more than about 25 wt. % fatty acids having less than 18 carbon atoms. The triglyceride material is derived from biodegradable material produced from renewable resources. (see column 2, lines 12 – 13). The triacylglycerol stock, whether altered or not, are generally derived from various plant and animal sources. (see column 4, lines 57-60.) In addition, the fatty acid profile of the triacylglycerol typically includes at least about 50 wt. % 18:1 fatty acid and no more than about 25 wt. % 18:0 fatty acid. In another embodiment, the triacylglycerol-based material is characterized in part by an Iodine Value of about 60 to 75. (see column 2, lines 64-65) For applications such as candles, the wax commonly includes a hydrogenated vegetable oil and palmitic acid. Candles formed from triacylglycerol-based material and methods of producing the candles are also provided.

Murphy et al. discloses that the triacylglycerol is hydrogenated, with the level of hydrogenation varies with the end use application. Also, hydrogenation is carried out under pressure using suitable catalyst such as nickel. (see column 3, lines 27, 28 & 57-65). The process of Murphy et al. may include refinement of the stock that involves neutralization, bleaching, deodorizing. (see column 7, lines 32-37). Murphy et al. discloses that the process of hydrogenation reduces the degree of unsaturation in the material, and mentions that it is advantageous to minimize the amount of free fatty acid(s) in the triacylglycerol-based material. (see Column 7, lines 40-50). Murphy et al. discloses the addition of dyes, fragrances, mineral oil and paraffin. (see column 9). Murphy et al discloses molded or unmolded candles (see column 8).

Murphy et al. fails to explicitly disclose that the raw material is obtained by the steps of claim 4, such as, centrifuging; hydrogenation with a platinum catalyst or processing lipids into a uniform triglyceride.

Best et al. discloses that extraction of non-water soluble mixtures can be formed in a centrifugal field and separated. (see column 2 lines 45-48). However, the separation methods, as set out in claim 4 are within the purview of the ordinary artisan.

Kuiper, in Example 7, discloses a process for selective hydrogenation of triglyceride oils using a platinum catalyst.

The references fail to disclose a process wherein the lipids within the mixture pre process into a uniform triglyceride. However, as discussed in Murphy et al. the physical properties of a triacylglycerol are primarily determined by (i) the chain length of the fatty acyl chains, (ii) the amount and type (cis or trans) of unsaturation present in the fatty

acyl chains, and (iii) the distribution of the different fatty acyl chains among the triacylglycerols that make up the fat or oil. Therefore, it would be well within the purview of the ordinary artisan to elect the lipid material with the intent of obtaining a uniform triglyceride during the process.

For the reasons set forth above, It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to use the as suggested by Murphy et al., and even hydrogenate the triglyceride with a metal catalyst as suggested by Kuiper to produce an raw material for such as a wax, useful in the production of candles or for heat storage.

Therefore, all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention. *KSR International Co. v. Teleflex Inc.*, 550 U.S. ___, 82 USPQ2d 1385 (U.S. 2007).

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claim 21 rejected under 35 U.S.C. 102(b) as being anticipated by Yoshida (JP 1067580).

Applicant claims the product of raw material for candle production and heat storage material produced by the method of claim 1.

Yoshida discloses heat storage material made from animal or vegetable oil.

Applicant is reminded: "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). The structure implied by the process steps should be considered when assessing the patentability of product-by-process claims over the prior art, especially where the product can only be defined by the process steps by which the product is made, or where the manufacturing process steps would be expected to impart distinctive structural characteristics to the final product. See, e.g., In re Garnero, 412 F.2d 276, 279, 162 USPQ 221, 223 (CCPA 1979). "The Patent Office bears a lesser burden of proof in making out a case of *prima facie* obviousness for product-by-process claims because of their peculiar nature" than when a product is claimed in the conventional fashion. In re Fessmann, 489 F.2d 742, 744, 180 USPQ 324, 326 (CCPA 1974). Once the examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to applicant to come forward with evidence

establishing an unobvious difference between the claimed product and the prior art product. In re Marosi, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983).

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

12. Claim 22 is rejected under 35 U.S.C. 102(b) as being anticipate by Tsaras (U. S. 3,844,706).

Applicant claims a candle.

Tsaras discloses a candle made of glycerides from animal or vegetable life. (see column 2, lines 60-64).

Applicant is reminded that claim 22 is claimed in a Product-by-process format. See the position of the PTO set out above in paragraph 6.

Allowable Subject Matter

13. Claim 3 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and the 112 rejection overcome.

The following is a statement of reasons for the indication of allowable subject matter: The prior art fails to teach or suggest the claimed reaction step wherein the starting material is dehydrogenated and sterilized.

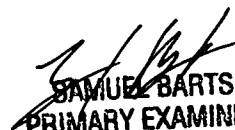
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yate' K. Cutliff whose telephone number is (571) 272-9067. The examiner can normally be reached on M-TH 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yvonne Eyler can be reached on (571) 272 - 0871. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Yaté K. Cutliff
Patent Examiner
Group Art Unit 1621
Technology Center 1600


SAMUEL BARTS
PRIMARY EXAMINER
GROUP 1600